## BY ORDER OF THE COMMANDER AIR FORCE MATERIEL COMMAND



## AFMC INSTRUCTION 63-501 14 DECEMBER 2001

Acquisition

AFMC QUALITY ASSURANCE

## COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction provides quality assurance (QA) policy and assigns QA responsibilities for all AFMC centers, units, and headquarters (HQ) functions. It implements Air Force Policy Directive (AFPD) 63-5, *Quality Assurance*, Air Force Instruction (AFI) 63-501, *Air Force Acquisition Quality Program*, AFI 21-101, *Maintenance Management of Aircraft*, and AFI 21-102, *Depot Maintenance Management*, and applicable provisions in other Air Force and Department of Defense (DoD) directives. Organic quality assurance policy for operational aircraft/equipment for AFMC test centers will be in accordance with AFI 21-101, *Maintenance Management of Aircraft*, and AFMCI 21-119, *Objective Center/Test Wing Aircraft Maintenance Management Policy*. This is the initial publication of this instruction.

- **1. AFMC QA.** AFMC is committed to providing superior quality weapon systems, end-items, supplies, and services. AFMC program offices, buying offices, Air Force Research Laboratory, and all centers must maintain acquisition and/or sustainment quality assurance processes that:
  - 1.1. Align the quality management system with strategic planning and AFMC's management commitment.
  - 1.2. Provide essential quality policy and objectives for quality planning.
  - 1.3. Ensure the overall effectiveness of these efforts throughout the life-cycle of weapon system management including operational support and disposal.

All acquisition and sustainment personnel will be responsible for performing quality functions involved in their assigned duties. Program documentation will describe the quality management system and how it will contribute to minimizing cost, schedule, and performance risks throughout the product life cycle.

2. Relationship to Operational Safety, Suitability, and Effectiveness (OSS&E). Quality management is an important tool of the chief engineer and lead engineer to ensure OSS&E in support of the single manager. QA trends are means for verifying the associated systems or the processes used in support of such systems are operationally safe, suitable, and effective. While authority for decisions affecting system configuration, maintenance procedures, and authorized usage can be delegated, the chief engineer or lead engineer remains accountable and responsible. The chief engineer or lead engineer will coordinate OSS&E activity with the single manager in accordance with AFMCI 63-1201, Assurance of Operational Safety, Suitability, & Effectiveness.

## 3. Responsibilities and Authorities.

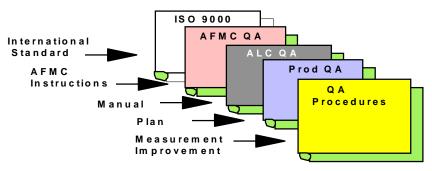
- **3.1. AFMC acquisition and sustainment organizations** will ensure the applicable QA provisions are defined, documented, and implemented in their areas of responsibility. This responsibility includes gaining a clear understanding of the organization's objectives as they relate to quality and of the expectations and needs of the customer throughout the weapon system lifecycle. They will monitor and control all activities that impact quality and ensure quality requirements and standards are consistently met.
- **3.2. International Acquisitions.** AFMC organizations responsible for international acquisitions must adhere to international QA policy defined in AFI 63-501, paragraph 3.
- **3.3. HQ AFMC functional organizations** will use QA techniques to measure, assess, report, and improve performance. A QA council, composed of HQ AFMC and center QA representatives as determined by the center commander or designee, will meet annually to work common QA issues and assess the overall health of AFMC QA.
  - **3.3.1. HQ AFMC/EN,** Directorate of Engineering and Technical Management will monitor implementation of and ensure compliance with QA policies. They will provide management guidance, assist field activities, and monitor the effectiveness of all AFMC organizations. They will coordinate with SAF, USAF, other MAJCOMs, DoD components, federal agencies, and industry to resolve QA issues of mutual interest and to ensure joint service strategies are provided to all AFMC organizations. They will chair the QA council and manage deficiency reporting policy.
  - **3.3.2. HQ AFMC/LG** manages the supply management and depot maintenance mission areas (SMMA and DMMA). The LG directorate will manage assigned DoD and Air Force programs and provide the environment for continual improvement of products, services, and processes associated with item management, transportation, supply, and Depot maintenance activities/policy.
    - 3.3.2.1. The **SMMA** will promote QA in providing logistics services and processes to fulfill Air Force spare parts requirements. This includes requirements forecasting, item introduction, cataloging, procurement, repair, technical support, data management, item disposal, distribution management, and transportation. They will provide policy, guidance, and resources that create an environment for continuous improvement in the supply processes.
    - 3.3.2.2. The **DMMA** will promote QA in the overhaul and repair of systems and spare parts, accomplished by both AFMC depots and contract operations. They will provide policy, guidance, and resources that create an environment for continuous improvement in maintenance and repair processes.

- **3.3.3. HQ AFMC/CE** manages the AFMC installations and support mission area (I&S MA). The **I&S MA** will employ quality processes in support of units, operations, and their people with facilities, infrastructure, and base support.
- **3.3.4. HQ AFMC/DO** manages the AFMC test and evaluation mission area (TEMA). The **TEMA** will employ quality processes in providing support for AFMC's developmental test and evaluation (DT&E) requirements, its T&E infrastructure, and other operational services. The DO directorate will manage operational aircraft/equipment maintenance policy for AFMC product, test, and specialized centers, not including air logistic centers.
- **3.3.5. HQ AFMC/DR** manages AFMC product support mission area (PSMA) and the information services activity group mission areas (ISAG).
  - 3.3.5.1. The **PSMA** will ensure the quality of resources, policies, and processes required to plan, manage, and integrate weapon systems throughout their life cycles.
  - 3.3.5.2. The **ISAG** will ensure that quality requirements are defined and maintained throughout the development, maintenance, integration, and sustainment of the combat support information systems they provide to the user.
- **3.3.6. HQ AFMC/PK** will ensure that proper QA requirements, as requested by the responsible engineering organization, are included in all AFMC solicitations and contracts. HQ AFMC/PKO is the office of primary responsibility for the QA program for service contracts. (See AFI 63-124, *Performance Based Service Contracts.*)
- **3.3.7. HQ AFMC/SC** manages the AFMC information management mission area (IMMA). The **IMMA** will employ quality processes in its business operations.
- **3.4. Air Force Research Laboratory (AFRL)** will ensure the Technology Directorates and Air Force Office of Scientific Research (AFOSR) are supported with trained and competent personnel responsible for QA. They will be responsible for appropriate quality process flow down through their directorates and for integrating quality processes into their research and development efforts. Directorate organizations that organically produce maintenance products, test models, hardware/software changes, or modifications to AFMC systems will document their QA programs in a quality plan.
- **3.5.** Product centers, test centers, and air logistics centers will ensure integrated product teams and/or program offices are supported with well-trained competent personnel responsible for providing quality products and services.
  - **3.5.1.** System Program Directors (SPD) and Product Group Managers (PGM) are responsible for implementing the Acquisition Quality Program of AFI 63-501. Integration of QA processes with operational support and applicable test and laboratory activities will be considered to ensure a quality product.
    - **3.5.1.1.** Chief Engineers in support of Single Managers are accountable and responsible for QA duties to ensure manufacturing and repair entities deliver quality products. This includes the selection and qualification of new sources.
  - **3.5.2.** Test centers are responsible for contract administration QA and organic maintenance QA.
    - **3.5.2.1. Test center Contract Administration Offices (CAO)** are Air Force Contract Administration Service (CAS) components as identified in the *Federal Directory of CAS Components*, and perform test center CAS activities as prescribed in FAR Part 42 and Part 46.

Test center CAS QA representatives are responsible for ensuring QA contract administration and audit services are performed in accordance with formal agreements or delegations received from delegating agencies for contracts being performed at their centers.

- **3.5.2.2. Test center Organic Maintenance QA** will be accomplished in accordance with AFI 21-101 as implemented by AFMCI 21-119.
- **3.5.3. ALCs and Aerospace Maintenance and Regeneration Center (AMA RC)**. ALCs and AMARC will implement this instruction using provisions contained in functional QA policy directives.
  - **3.5.3.1. ALC and AMARC** commanders will designate a center QA focal point responsible for implementing this instruction. Responsibilities will include the receipt, interpretation, distribution, and implementation of policies and procedures affecting QA and assessment of their effectiveness.
  - **3.5.3.2. ALC Quality Manuals and Plans.** All ALCs must maintain a center quality manual. All major organic depot maintenance workloads must be documented by the directorate QAP and/or supporting QAPs (see AFMCI 21-115). Figure 1 illustrates the hierarchy of quality program documentation flow. ALCs will establish internal reviews to measure compliance with AFMCI 63-501. The quality manual must be compatible with the provisions of ISO 9001 in order to allow expansion to achieve ISO 9000 registration if required by customers or desired in the future.

Figure 1. ALC Documentation Flow.



- **3.5.3.3. AMARC.** A center quality manual is not required; however, all major workloads must be documented by a QAP.
- **3.5.3.4. ISO 9000 registration** of AFMC QA programs is **not** required. Second party certification or third party registration is left to the discretion of the center commander.
- **3.6. Air Force Security Assistance Center (AFSAC).** AFSAC will ensure that the required level of QA is provided in all Foreign Military Sales (FMS) contracts that it manages. AFSAC will tailor QA options for FMS purchasers based on the purchasers' identified unique requirements.